

## AMENDMENTS TO THE CLAIMS

1     1.     (Currently Amended) A computer-implemented method for buffering data in a  
2           multithreaded environment, comprising:  
3           reading a buffer index value that identifies a data buffer that was last used for  
4           buffering data;  
5           incrementing the buffer index value;  
6           locating a buffer array entry that is associated with the buffer index value;  
7           determining, at a particular time, whether the buffer array entry indicates a  
8           particular value;  
9           if the buffer array entry does not indicate the particular value at the particular  
10           time, then, in response to a determination at the particular time that the  
11           buffer array entry does not indicate the particular value, attempting to  
12           obtain a lock on a particular data buffer that is associated with the buffer  
13           array entry; and  
14           if the buffer array entry indicates the particular value at the particular time, then,  
15           in response to a determination at the particular time that the buffer array  
16           entry indicates the particular value, incrementing the buffer index value  
17           without attempting to obtain a lock on the particular data buffer.

1     2.     (Previously Presented) The method of Claim 1, further comprising:  
2           if the attempt to obtain the lock on the particular data buffer succeeds, then  
3           updating the buffer array entry to indicate the particular value.

1     3.     (Previously Presented) The method of Claim 1, further comprising:  
2           receiving a connection request from a client;  
3           assigning a thread of execution to process said connection request; and

4 selecting a particular buffer management structure from a plurality of buffer  
5 management structures, wherein said plurality of buffer management  
6 structures are each associated with a set of data buffers that are used for  
7 buffering data to a physical memory unit;  
8 wherein the buffer index value is associated with the particular buffer  
9 management structure.

1 4. (Previously Presented) The method of Claim 1, further comprising:  
2 generating log data in response to a request for accessing a resource, wherein said  
3 resource represents one or more sets of content that are associated with a  
4 network server; and  
5 selecting a buffer management structure based on one or more addresses in which  
6 said one or more sets of content are stored on said network server.

1 5-6. (Canceled)

1 7. (Previously Presented) The method of Claim 1, further comprising the step of  
2 writing log data into said particular data buffer.

1 8-9. (Canceled)

1 10. (Previously Presented) The method of Claim 1, further comprising:  
2 maintaining a plurality of data buffers as an array of available buffers; and  
3 in response to detecting that the particular data buffer contains a particular limited  
4 amount of free data space, removing said particular data buffer from said  
5 array of available buffers.

1 11. (Original) The method of Claim 10, wherein the step of removing said particular  
2 data buffer from said array of available buffers further comprises linking said  
3 particular data buffer into a list of ready-to-write data buffers.

1 12. (Original) The method of Claim 11, further comprising:  
2 removing said particular data buffer from said array of available buffers; and  
3 storing on a non-volatile storage unit information contained in said particular data  
4 buffer.

1 13. (Previously Presented) The method of Claim 1, further comprising:  
2 maintaining a plurality of data buffers as an array of available buffers; and  
3 in response to determining that no data buffer is available in said array of  
4 available buffers for storing said log data, requesting a free data buffer  
5 from a global list of free data buffers.

14-35. (Canceled)

1 36. (Currently Amended) A tangible computer-readable medium carrying one or  
2 more sequences of instructions for buffering data in a multithreaded environment,  
3 wherein execution of the one or more sequences of instructions by one or more  
4 processors causes the one or more processors to perform the steps of:  
5 reading a buffer index value that identifies a data buffer that was last used for  
6 buffering data;  
7 incrementing the buffer index value;  
8 locating a buffer array entry that is associated with the buffer index value;  
9 determining, at a particular time, whether the buffer array entry indicates a  
10 particular value;  
11 if the buffer array entry does not indicate the particular value at the particular  
12 time, then, in response to a determination at the particular time that the  
13 buffer array entry does not indicate the particular value, attempting to

1           obtain a lock on a particular data buffer that is associated with the buffer  
2           array entry; and  
3       if the buffer array entry indicates the particular value at the particular time, then,  
4           in response to a determination at the particular time that the buffer array  
5           entry indicates the particular value, incrementing the buffer index value  
6           without attempting to obtain a lock on the particular data buffer.

1   37.   (Previously Presented) The computer-readable medium of Claim 36, further  
2       comprising instructions for performing the steps of:  
3       if the attempt to obtain the lock on the particular data buffer succeeds, then  
4           updating the buffer array entry to indicate the particular value.

1   38.   (Previously Presented) The computer-readable medium of Claim 36, further  
2       comprising instructions for performing the steps of:  
3       receiving a connection request from a client;  
4       assigning a thread of execution to process said connection request; and  
5       selecting a particular buffer management structure from a plurality of buffer  
6           management structures, wherein said plurality of buffer management  
7           structures are each associated with a set of data buffers that are used for  
8           buffering data to a physical memory unit;  
9       wherein the buffer index value is associated with the particular buffer  
10       management structure.

1   39.   (Previously Presented) The computer-readable medium of Claim 36, further  
2       comprising instructions for performing the steps of:  
3       generating log data in response to a request for accessing a resource, wherein said  
4           resource represents one or more sets of content that are associated with a  
5           network server; and

6           selecting a buffer management structure based on one or more addresses in which  
7           said one or more sets of content are stored on said network server.

1   40.   (Previously Presented) The computer-readable medium of Claim 36, further  
2       comprising instructions for performing the step of writing log data into said  
3       particular data buffer.

1   41.   (Previously Presented) The computer-readable medium of Claim 36, further  
2       comprising instructions for performing the steps of:  
3       maintaining a plurality of data buffers as an array of available buffers; and  
4       in response to detecting that the particular data buffer contains a particular limited  
5           amount of free data space, removing said particular data buffer from said  
6           array of available buffers.

1   42.   (Previously Presented) The computer-readable medium of Claim 41, wherein the  
2       step of removing said particular data buffer from said array of available buffers  
3       further comprises linking said particular data buffer into a list of ready-to-write  
4       data buffers.

1   43.   (Previously Presented) The computer-readable medium of Claim 42, further  
2       comprising instructions for performing the steps of:  
3       removing said particular data buffer from said array of available buffers; and  
4       storing on a non-volatile storage unit information contained in said particular data  
5           buffer.

1   44.   (Previously Presented) The computer-readable medium of Claim 36, further  
2       comprising instructions for performing the steps of:  
3       maintaining a plurality of data buffers as an array of available buffers; and

4 in response to determining that no data buffer is available in said array of  
5 available buffers for storing said log data, requesting a free data buffer  
6 from a global list of free data buffers.

1 45. (Currently Amended) A computer system, comprising:  
2 means for reading a buffer index value that identifies a data buffer that was last  
3 used for buffering data;  
4 means for incrementing the buffer index value;  
5 means for locating a buffer array entry that is associated with the buffer index  
6 value;  
7 means for determining, at a particular time, whether the buffer array entry  
8 indicates a particular value;  
9 means for attempting to obtain a lock on a particular data buffer that is associated  
10 with the buffer array entry in response to a determination that the buffer  
11 array entry does not indicate the particular value at the particular time; and  
12 means for incrementing the buffer index value without attempting to obtain a lock  
13 on the particular data buffer in response to a determination that the buffer  
14 array entry indicates the particular value at the particular time.